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DVORAK AND TRAUB
53 WEST JACKSON BOULEVARD
CHICAGO IL 60604

EXAMINER	
PHIPPS M	
ART UNIT	**PAPER NUMBER**
1742	11

DATE MAILED: 03/17/98

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

☐ This application has been examined ☒ Responsive to communication filed on Protest of 12/4/97 8/1/97, 12/5/97 ☒ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), _____ days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. ☐ Notice of References Cited by Examiner, PTO-892.
2. ☐ Notice of Draftsman's Patent Drawing Review, PTO-948.
3. ☒ Notice of Art Cited by Applicant, PTO-1449.
4. ☐ Notice of Informal Patent Application, PTO-152.
5. ☐ Information on How to Effect Drawing Changes, PTO-1474.
6. ☐ _____.

Part II SUMMARY OF ACTION

1. ☒ Claims 1-4, 6-15 and 17-23 are pending in the application.

Of the above, claims _____ are withdrawn from consideration.

2. ☐ Claims _____ have been cancelled.

3. ☐ Claims _____ are allowed.

4. ☒ Claims 1-4, 6-15 and 17-23 are rejected.

5. ☐ Claims _____ are objected to.

6. ☐ Claims _____ are subject to restriction or election requirement.

7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.

8. ☐ Formal drawings are required in response to this Office action.

9. ☐ The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).

10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on _____. has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).

11. ☐ The proposed drawing correction, filed _____, has been ☐ approved; ☐ disapproved (see explanation).

12. ☒ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☒ been received ☐ not been received ☐ been filed in parent application, serial no. _____; filed on _____. from WIPO

13. ☐ Since this application apppears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14. ☐ Other

EXAMINER'S ACTION

DETAILED ACTION

Specification

1. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

Claim Objections

2. Claims 7-10 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The replacement of essential constituents in the independent claims appears to broaden the independent claim, e.g. having the minima of Ag be reduced.

Claim Rejections - 35 USC § 112

3. Claims 7-10 and 21-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 7-10 are indefinite because it is not clear what the range of silver being claimed is wherein additional elements replace it. Do the maxima and minima of Ag change or not? It would be preferable to insert the optional elements in the independent claims to obviate any question of the range intended.

Claims 21-23 are indefinite, confusing and appear incomplete because of the method "further including" the single operative step claimed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-4, 6-15, and 17-23 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bernhard et al 5,039,479 in view of Youdelis 4,124,380.

Bernhard et al teaches an alloy having a composition of 89-93.5 Ag, 0.02-2 Si, 0.001-2 B, 0.5-5 Zn, 0.5-6 Cu, 0.25-6 Sn, and 0.01-1.25wt% In, which is formed by a method utilizing a master alloy which is to be alloyed with Ag metal, said master alloy including 4.5-76.9 Zn, 2.2-80 Sn, 4.5-92 Cu, 0.05-30 Si, 0.01-1.2 In and about 0.01-3.07 B, which overlaps applicant's claimed composition and master alloy composition. Note, for instance the abstract; col. 2, lines 10-37, claim 1.

The exact amounts of each of the constituents, and all of the various properties recited in applicant's claims, e.g. "firescale resistant, work hardenable jewelry silver" and Ge are not disclosed in the prior art; however, the prior art compositions overlap and closely approximate those as claimed.

The Bernhard et al reference does not disclose utilizing Ge in the silver compositions. However, it is known in the art, as is evidenced by Youdelis, that by adding overlapping amounts (0.1-10%) Ge to silver alloys, virtual elimination of oxidation occurs. See the abstract. It would have been obvious to one having ordinary skill in the art at the time of instant invention to have utilized overlapping amounts of Ge in Bernhard et al's alloys, because of the deoxidizing accorded by doing so. Bernhard et al's teaching of the master alloy includes adding elements other than silver as the master alloying composition. It would have been obvious to one having ordinary skill in the art at the time of instant invention to have formed the composition with Ge, such as is broadly claimed by applicants, to form a composition that will include the desired amounts of Ge in the resultant alloy, by adding from small to significant amounts, such as would overlap instant claimed ranges because it would form the desired alloy. This renders compositions which overlap the claimed ranges for both the alloy and the master alloy.

It has been held that one of ordinary skill in the art at the time the invention was made would have considered the claimed compositions to have been obvious because overlapping or closely approximating ranges in a composition are considered to establish a prima facie case of obviousness. See In re Malagari, 182 U.S.P.Q. 549; Titanium Metals vs. Banner, 227 USPQ 773. Further, in view of this overlap in composition, the composition taught by the reference would be expected to possess the same properties of applicant's claimed material. See MPEP 2112.01, In re Best, 195 USPQ 430.

Response to Arguments

5. Applicant's arguments filed August 1, 1997 and December 5, 1997 have been fully considered but they are not persuasive. Additionally the comments of the protester will be addressed.

No abstract of the disclosure has been received.

The amendments to the claims overcome the rejections based upon JP '148 and '660 and Harigaya et al because of the additional compositional limitations.

Applicants argue that the examiner has misunderstood the references applied in the rejection. However, instant claimed alloys overlap the alloy/method of Bernhard et al, when modified by Youdelis's teaching of adding Ge to improve oxidation resistance. The fact that applicants do not add Ge for the same reason does not rebut the obviousness of the overlapping composition, albeit formed for a different goal. Applicants further argue that Youdelis does not teach the B, In additions claimed. Note that Bernhard et al, col. 2, lines 7-16, teach the In, B overlapping compositions, Youdelis is not relied upon for B, In. The burden is on applicant to establish criticality of instant claimed ranges in view of the overlapping prior art compositions.

JP 04-224,645 discloses an overlapping composition within the broad teaching of Bernhard et al, when modified by Youdelis for forming master alloys for Ag/Cu alloys. It was not applied in the original rejection or instant rejection as there were no specific examples to more closely define any specific prior art alloy. Any confusion caused by including it in the statement of the rejection is regretted.

Response to Protest under 37 CFR 1.291(a)

6. A protest was filed under 37 CFR 1.291(a), seeking to have references considered by the examiner. Note the attached 1449 form indicating that each of said references has been considered. The protester's reasoning has also been considered, but as it is cumulative to the rejection of record, a new ground of rejection is not deemed warranted at this time. The D1 reference cited was previously of record, and the D2 reference was previously applied in the first Office Action based upon the same premise that overlapping silver/copper alloys have been shown in the prior art, and any differences in composition are only in conventional amounts of conventional additives. The examiner agrees with the protester's position that it is conventional to add Zn, Si to silver alloys, and that the use of Ge within silver alloys was recognized at the time of instant invention.

The issue of deleting an essential feature in the PCT application is noted. However, the silver content in instant application is within the originally filed range alleged to be essential. Therefore this issue is not applicable in instant application. A statement that service of the protest papers was made on December 2, 1997 is noted.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margery Phipps whose telephone number is (703) 308-2946. The examiner can normally be reached on Monday to Thursday from 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Simmons, can be reached at 308-1972. The fax phone number for the group is (703) 305-3599.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.

Margery S. Phipps
Patent Examiner